[NL 000564]

REMARKS

I. INTRODUCTION

Claim 20 has been canceled. Claims 9, 11, 12, 15, 17, and 19 have been amended. No new matter has been added. Thus, claims 1-19 remain pending in this application. It is respectfully submitted that based on the following remarks that all of the presently pending claims are in condition for allowance.

II. THE 35 U.S.C. § 101 REJECTIONS SHOULD BE WITHDRAWN

The Examiner has rejected claim 19 because the claimed invention is directed to non-statutory subject matter. (See 3/10/06 Office Action, p. 2, ¶ 2). Claim 19 has been amended to recite a "computer readable storage medium including a bit-stream representing a multimedia object in which bit-stream quality information has been added ...." As amended in order to make the claim proper statutory subject matter, it is respectfully submitted that the Examiner withdraws the 35 U.S.C. § 101 rejection of claim 19.

III. THE 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN

The Examiner has rejected claims 1-7, 10, 12-14, 17, and 19 under 35 U.S.C. § 103(a) as unpatentable over U.S. Pat. No. 6,493,387 (Shin) in view of U.S. Pat. No. 6,147,028 (Kikuchi). (See 3/10/06 Office Action, p. 3, ¶ 3).

Shin describes a moving picture coding/decoding method and apparatus having a spatially scalable architecture and a signal-to-noise ratio (SNR) scalable architecture. The coding method includes a step of down sampling shape information and texture information by a predetermined ratio to construct a spatially scalable architecture including a single base layer and at least one enhancement layer. (See Shin, abstract). In particular, the first SNR scalable architecture decoder 223 sequentially inversely transforms bitstreams selected from a SNR scalable architecture contained in the base layer bitstream and sequentially adds the inverse

frequency transformed bitstreams to the base layer texture information, thereby improving the picture quality of the base layer. (See Id., col. 7, ll. 18-23).

Kikuchi describes a video coding/decoding apparatus with a high error resilience. The apparatus comprises a prediction circuit that divides an input video signal into large regions and small regions in a hierarchical fashion and produces a prediction signal by performing predictions on a region by region basis. The apparatus also includes a subtracter for generating a prediction error signal for a prediction signal at the lowest level, a DCT circuit for coding a prediction error signal, a quantization circuit and a variable-length encoder, a variable-length encoder for coding the prediction mode and motion vector information obtained at each level from the prediction circuit, and a multiplexor for multiplexing the code strings obtained from the variable-length encoder and dividing them into the upper-layer and lower-layer code strings to output the code strings obtained at the variable-length encoder particularly as upper-layer code strings. (See Kikuchi, abstract). In particular, the sizes of the large and small regions and information indicating the pixel accuracy of motion compensation are added to the picture header. (See Id., col. 12, ll. 24-30).

Claim 1 recites "generating quality information which indicates *distortion* of the object when the bit-stream is *truncated* during decoding thereof in relation to the data parts of the coded parts of the bit-stream." The Examiner asserts that Shin discloses this recitation of claim 1. (See 3/10/06 Office Action, p. 4, ¶ 3). Applicants respectfully disagree. Shin specifically discloses that the first SNR scalable architecture decoder 223 sequentially *adds* the inverse frequency transformed bitstreams to the base layer texture information, thereby improving the picture quality of the base layer. (See Shin, col. 7, ll. 18-23). That is, Shin is directed toward a method to *improve* a bitstream by adding subsequent layers to a base layer. There is no truncated bit stream in Shin. Thus, Shin neither discloses nor suggests "generating quality information which indicates *distortion* of the object when the bit-stream is *truncated* during decoding thereof in relation to the data parts of the coded parts of the bit-stream," as recited in claim 1.

Furthermore, the Examiner has correctly stated that Shin fails to teach the coded part "including a header and a data part" and adding the "quality information into the headers of the

coded parts of the bit-stream," as recited in claim 1. (See 3/10/06 Office Action, p. 4, ¶ 3). The Examiner has attempted to cure this deficiency with Kikuchi. However, Kikuchi does not cure this deficiency.

Kikuchi adds the sizes of the large and small regions and information indicating the pixel accuracy of motion compensation to the picture header. (See Kikuchi, col. 12, ll. 24-27). Since Kikuchi is directed toward a prediction model, the pixel accuracy compares what the bitstream *should* be (*i.e.*, Kikuchi looks forward). In contrast, the quality information being added for the present invention does the opposite. Specifically, the quality field for distortion is stored *after* completely decoding the bit plane following the quality field. In this way, if the stream is truncated inside a bit plane, the approximate quality may be obtained by interpolation. This is easier than the extrapolation that would be required if the quality field were to contain information about the distortion *before* decoding the current bit plane (*i.e.*, as is the case in Kikuchi). (See Specification, p. 8, ll. 7-11). Accordingly, Applicants respectfully submit that it is insufficient to simply find a disclosure that includes information that is added to the header, but there must also be a correlation between the quality information that is added because the recitation of claim 1 specifically recites "quality information which indicates distortion of the object when the bit-stream is truncated during decoding thereof." Those of skill in the art would understand that the quality information used in Kikuchi and the distortion field of the present application differ in the method for which they are used. Thus, there is no disclosure in either Shin or Kikuchi of the coded part "including a header and a data part" and adding the "quality information into the headers of the coded parts of the bit-stream," as recited in claim 1.

Thus, it is respectfully submitted that neither Shin nor Kikuchi, either alone or in combination, disclose or suggest "generating quality information which indicates *distortion* of the object when the bit-stream is *truncated* during decoding thereof in relation to the data parts of the coded parts of the bit-stream," the coded part "including a header and a data part," and adding the "quality information into the headers of the coded parts of the bit-stream," as recited in claim 1. Accordingly, it is respectfully submitted that the Examiner should withdraw the 35 U.S.C. § 103(a) rejection of claim 1. Because claims 2-7 depend from and, therefore, include all

the limitations of claim 1, it is also respectfully submitted that these claims are allowable for at least the reasons stated above.

Independent claim 10 recites "generating quality information which indicates *distortion* of the object when the bit-stream is *truncated* during decoding thereof in relation to the data parts of the coded parts of the bit-stream." Independent claim 12 recites "the quality information indicating *distortion* of the object in relation to a given position in (or a given part of) the bit-stream *upon a truncation*." Independent claims 13 and 14 recite "means for generating quality information which indicates *distortion* of the object when the bit-stream is *truncated* during decoding thereof in relation to the data parts of the coded parts of the bit-stream." Independent claim 17 recites "the quality information indicating *distortion* of the object in relation to a given position in (or a given part of) the bit-stream upon a *truncation*." Independent claim 19 recites "the quality information indicating *distortion* of the object when the bit-stream is *truncated* during decoding thereof in relation to the data parts of the coded parts of the bit-stream." Thus, Applicants respectfully submit that these claims are allowable for at least the same reasons stated above with reference to claim 1.

The Examiner has rejected claims 9, 11, 15-16, and 18 under 35 U.S.C. § 103(a) as unpatentable over U.S. Pat. No. 6,493,387 (Shin) in view of U.S. Pat. No. 6,147,028 (Kikuchi) further in view of U.S. Pat. No. 6,658,057 (Chen). (See 3/10/06 Office Action, p. 11, ¶ 4). Shin and Kikuchi were discussed above.

Chen describes a method and apparatus by which a translucent logo is inserted into the transcoded digital bistream of an MPEG transcoder without changing the digital nature of the bitstream. A translucent logo is generated and added to the reconstructed bideo image produced by the decoder section of the MPEG transcoder upstream of the transcoder's encoding section. (See Chen, abstract). Chen also discloses that the transcoder 10 simply re-encodes and re-compresses the input digital bitstream 16 to match a specific bit-rate which is dictated by the transmission network on which bitstream 16 is traveling. (See Id., col. 3, ll. 15-18). Chen does not disclose any details concerning a truncation nor quality information indicating distortion.

The Examiner has correctly stated that Shin or Kikuchi, either alone or combination, fails to teach the transcoding the bit stream and provide the desired combination of bit-rate and quality. (See 3/10/06 Office Action, p. 12, ¶ 4). The Examiner has attempted to cure this deficiency with Chen. However, Chen does not cure the deficiencies of Shin and Kikuchi as described above. Thus, it is respectfully submitted that neither Shin nor Kikuchi nor Chen, either alone or in combination, does not disclose "the quality information indicating *distortion* of the object in relation to a given position in (or a given part of) the bit-stream...transcoding or *truncating* the at least one bit-stream in the case a desired combination of bit-rate and *distortion* of the at least one bit-stream differs from a current combination of bit-rate and *distortion* of the at least one received bit-stream," as recited in claim 9.

Independent claim 11 recites "the quality information indicating *distortion* of the object in relation to a given position in (or a given part of) the bit-stream...transcoding or *truncating* the at least one bit-stream in the case a desired combination of bit-rate and *distortion* of the at least one bit-stream differs from a current combination of bit-rate and *distortion* of the at least one received bit-stream." Independent claims 15, 16, and 18 recite "means for generating quality information which indicates *distortion* of the object when the bit-stream is *truncated* during decoding thereof in relation to the data parts of the coded parts of the bit-stream." Thus, Applicants respectfully submit that these claims are allowable for at least the same reasons stated above with reference to claim 9.

The Examiner has rejected claim 8 under 35 U.S.C. § 103(a) as unpatentable over U.S. Pat. No. 6,493,387 (Shin) in view of U.S. Pat. No. 6,147,028 (Kikuchi) further in view of U.S. Pat. No. 5,809,139 (Girod). (See 3/10/06 Office Action, p. 15, ¶ 5). Shin and Kikuchi were discussed above.

Girod describes a digital watermarking method and apparatus for watermarking a digital video signal in a compressed form, thereby allowing watermarking of a pre-compressed video sequence without requiring the decoding and re-coding of the signal. The watermark signal is a sequence of information bits which has been modulated by a pseudo-random noise sequence to

spread it in the frequency domain. (See Girod, abstract). Girod does not disclose any details concerning a truncation nor quality information indicating distortion.

The Examiner has correctly stated that Shin or Kikuchi, either alone or combination, fails to teach the bitstream is encrypted and the quality information is unencrypted. (See 3/10/06 Office Action, p. 15, ¶ 5). The Examiner has attempted to cure this deficiency with Girod. However, Girod does not cure the deficiencies of Shin and Kikuchi as described above. Thus, it is respectfully submitted that neither Shin nor Kikuchi nor Girod, either alone or in combination, does not disclose "generating quality information which indicates *distortion* of the object when the bit-stream is *truncated* during decoding thereof in relation to the data parts of the coded parts of the bit-stream," as recited in claim 1. Because claim 8 depends from and, therefore, includes all the limitations of claim 1, it is respectfully submitted that this claim is allowable for at least the reasons stated above with reference to claim 1.

[NL 000564]

CONCLUSION

In view of the above remarks, it is respectfully submitted that all the presently pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Please direct all future correspondence to:

Larry Liberchuk, Esq.
Senior IP Counsel

Philips Intellectual Property & Standards
P.O. Box 3001
Briarcliff Manor, NY 10510-8001
Phone: (914) 333-9602
Fax: (914) 332-0615
Email: larry.liberchuk@philips.com

Respectfully submitted,

Dated: June 5, 2006

By:
Oleg F. Kaplun (Reg. No. 43,559)